UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,750	04/30/2001	Louis Arquie	K35A0767	4477

48929 7590 02/23/2007

HENSLEY KIM & EDGINGTON, LLC
1660 LINCOLN STREET
SUITE 3050
DENVER, CO 80264

EXAMINER	
NGUYEN, LE V	
ART UNIT	**PAPER NUMBER**
2174	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/846,750	ARQUIE ET AL.	
	Examiner	Art Unit	
	Le Nguyen	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *40-78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *48-64* is/are allowed.

6)☒ Claim(s) *40-43,45-47,65,66,70-75 and 78* is/are rejected.

7)☒ Claim(s) *44,67,68,69,76 and 77* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to an amendment filed 12/13/06.

2. Claims 40-78 are pending in this application; and, claims 40,48, 60, 65, 70 and 71 are independent claims. Claims 1-39 have been cancelled; and claims 40-78 have been added.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 40-43, 45-47, 65, 66, 70-75 and 78 rejected under 35 U.S.C. 103(a) as being unpatentable over Blumenau et al. (US 6,845,395 B1, "Blumenau") in view of Nulu et al. (US 6,650,347 B1, "Nulu").

As per claim 40, Blumenau teaches a computer implemented method of selectively displaying port information for a network device in a storage network topology display comprising displaying a graphical device node in the network topology display, the graphical device node representing the network device having a first connection port and a second connection port connected in the network (figs. 14 and 19; *first connection port such as Fa14a; and second connection port such as Fa15a*),

displaying in the network topology display at least one connection path of the network coupled to the graphical device node, the at least one connection path graphically representing network connections to the first connection port and the second connection port of the device (figs. 14 and 19), and selectively expanding the graphical device node in response to a user selection of the graphical device node to display an expanded device node, wherein the expanded device node concurrently displays a graphical representation of the first connection port connected to a first connection path of the network and a graphical representation of the second connection port connected to a second connection path of the network (figs. 14 and 19; col. 31, line 27 through col. 32, line 11). Blumenau does not explicitly disclose that selectively displaying port information for a data network. Nulu teaches displaying port information for a data network (fig. 3; *displayed are port information for ports 330H and 330I*). It would have been obvious to an artisan at the time of the invention to incorporate the method of Nulu with the method of Blumenau so that users can drill down into individual network nodes to see connectivity information.

As per claim 41, although the modified Blumenau teaches a computer implemented method of selectively displaying port information for a network device in a network topology display wherein the graphical device node represents a network device selected from the group consisting of a switch and a hub (Blumenau: col. 26, lines 48-52), the modified Blumenau does not explicitly disclose the network node being a router. Official Notice is taken that it is well known in the art that a router is one kind of network node. Therefore, it would have been obvious to an artisan at the time of the

invention to incorporate a router as a network node with the method of the modified Blumenau so that users can drill down into individual network nodes to see connectivity information.

As per claim 42, the modified Blumenau teaches a computer implemented method of selectively displaying port information for a network device in a network topology display, wherein the expanded device node further displays port information for the first connection port and the second connection port (Blumenau: figs. 14 and 19; *port information such as port numbers Fa14a and Fa15a*; Nulu: fig. 3; *port information such as port numbers, for example, Port 1 and Port 2*).

As per claim 43, the modified Blumenau teaches a computer implemented method of selectively displaying port information for a network device in a network topology display wherein the port information comprises a port number (Blumenau: figs. 14 and 19; *e.g. port numbers Fa14a and Fa15a*; Nulu: fig. 3; *e.g. Port 1 and Port 2*).

As per claim 45, the modified Blumenau teaches a computer implemented method of selectively displaying port information for a network device in a network topology display wherein the selectively expanding operation comprises displaying a connection bar and displaying port information proximal the connection bar for the first connection port and the second connection port (Blumenau: figs. 14 and 19; Nulu: fig. 3).

As per claim 46, the modified Blumenau teaches a computer implemented method of selectively displaying port information for a network device in a network topology display wherein the displayed port information for each port is displayed

proximal the connection bar in a location indicating the relative location of the corresponding connected network device in the network topology display (Blumenau: figs. 14 and 19; col. 31, line 27 through col. 32, line 11).

As per claim 47, the modified Blumenau teaches a computer implemented method of selectively displaying port information for a network device in a network topology display wherein the graphical device node represents the network device and one or more devices connected to the network device (Blumenau: figs. 14 and 19).

As per claim 65, Blumenau teaches a method for displaying port information for a network device in a network topology display comprising displaying a network topology display comprising a graphical device node representing a network device in a physical network, the network device comprising a plurality of connection ports for connecting to other devices in the network (figs. 14 and 19; *plurality of connection ports such as port Fa14a and Fa15a*), in the network topology display, displaying at least one connection path coupled to the graphical device node, the at least one connection path representing connections from the other devices to a portion of the plurality of connection ports of the network device (figs. 14 and 19), receiving a user selection of the graphical device node in the network topology display and in response to the receiving of the user selection, modifying the displayed network topology display to include an expanded view of the displayed device node wherein the expanded view concurrently displays port information for the portion of the connection ports connected to the other devices in the network and wherein the port information for the portion of the connection ports connected to the other devices in the network is displayed in

locations in the expanded view indicating relative locations in the network topology display of the other devices connected to the graphical device node (figs. 14 and 19; col. 31, line 27 through col. 32, line 11). Blumenau does not explicitly disclose that selectively displaying port information for a data network. Nulu teaches displaying port information for a data network (fig. 3; *displayed are port information for ports 330H and 330I*). It would have been obvious to an artisan at the time of the invention to incorporate the method of Nulu with the method of Blumenau so that users can drill down into individual network nodes to see connectivity information.

As per claim 66, the modified Blumenau teaches a method for displaying port information for a network device in a network topology display comprising displaying a network topology display wherein the port information corresponding to the portion of the connection ports connected to the other devices in the network is displayed within the expanded view at elevations corresponding to elevations in the network topology display of the other devices connected to the device node, i.e. the network topology is a hierarchical network structure wherein the representation of devices are organized into a tree structure (Blumenau: figs. 14 and 19; col. 31, line 27 through col. 32, line 11).

As per claim 70, Blumenau teaches a method comprising displaying a network topology display including graphical device nodes and at least one connection path connecting the graphical device nodes, each graphical device node representing a network device comprising a plurality of connection ports for connecting to other devices in the network, each connection path representing at least one communicative connection between a connection port of a network device and another device in the

network (figs. 14 and 19; *plurality of connection ports such as port Fa14a and Fa15a*), detecting a user input event associated with the network topology display and modifying the network topology display to expand one of the graphical device nodes in the network topology display responsive to the operation of detecting a user input event, the expanded graphical device node concurrently displaying a plurality of port information indicators not displayed by the displaying operation, each port information indicator representing an individual connection port of the network device represented by the graphical device node and at least one of the plurality of port information indicators representing a connection port of the network device having a communicative connection to another device in the network (figs. 14 and 19; col. 31, line 27 through col. 32, line 11). Blumenau does not explicitly disclose that selectively displaying port information for a data network. Nulu teaches displaying port information for a data network (fig. 3; *displayed are port information for ports 330H and 330I*). It would have been obvious to an artisan at the time of the invention to incorporate the method of Nulu with the method of Blumenau so that users can drill down into individual network nodes to see connectivity information.

Claim 71 is similar in scope to claim 40 and is therefore rejected under similar rationale.

As per claim 72, the modified Blumenau teaches a computer-readable medium having computer-executable instructions for performing a computer process wherein the computer process comprises detecting another user input event associated with the network topology display and modifying the network topology display to collapse the

expanded graphical device node in the network topology display responsive to the operation of detecting another user input event, the collapsed graphical device node omitting display of the port information indicators (Blumenau: figs. 14 and 19; col. 31, line 27 through col. 32, line 11; Nulu: fig. 3; *omitting display of channel resources 307 and 308 of port 330l upon collapsing 330l*).

As per claim 73, the modified Blumenau teaches a computer-readable medium having computer-executable instructions for performing a computer process wherein each displayed port information indicator representing a connection port having a communicative connection to another device in the network is graphically associated with a connection path representing the communicative connection (Blumenau: figs. 14 and 19; col. 31, line 27 through col. 32, line 11).

As per claim 74, the modified Blumenau teaches a computer-readable medium having computer-executable instructions for performing a computer process wherein the expanded graphical device node displays a port information indicator for each connection port of the network device having a communicative connection to another device in the network (Blumenau: figs. 14 and 19; col. 31, line 27 through col. 32, line 11; *port information such as port numbers Fa14a and Fa15a*; Nulu: fig. 3; *port information such as port numbers, for example, Port 1 and Port 2*).

As per claim 75, the modified Blumenau teaches a computer-readable medium having computer-executable instructions for performing a computer process wherein the expanded graphical device node displays port information indicators for connection ports of the network device having communicative connections to one or more other

devices in the network and does not display port information indicators for connection ports of the network device not having communicative connections to one or more other devices in the network (Blumenau: figs. 14 and 19; col. 31, line 27 through col. 32, line 11).

Claim 78 is similar in scope to claim 43 and is therefore rejected under similar rationale.

Allowable Subject Matter

5. Claims 48-64 are allowed.

Claims 44, 67, 68, 69, 76 and 77 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an examiner's statement of reasons for allowance:

The prior art made of record fails to anticipate or make obvious the claimed invention. Specifically, the prior art fails to teach, in combination with the remaining elements:

in response to a user selection, modifying the network topology to display the graphical device node to concurrently display a plurality of port information wherein the port information comprises a port connection type indicator, such as UDP or TCP, as recited in claims 44, 48, 68 and 77; and, in response to a user selection, modifying the network topology to display the graphical device node to concurrently display port

information indicators of connection ports having no connection as recited in claims 60, 67 and 76.

Although Blumenau and Nulu teaches a substantial amount of the claimed matters, Blumenau and Nulu fail to anticipate or render the above limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

7. Applicant's arguments with respect to claims 1-9 and 12-39 have been considered but are moot in view of the new ground(s) of rejection.

Inquires

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached at (571) 272-4063.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lvn
Patent Examiner
February 8, 2007

SY LUU
PRIMARY EXAMINER